Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
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Ex parte YASUHIRO HASHIMOTO, MASAHIRO SAKO,
HIROYUKI INENAKA and YUJI YAMASHITA
_____

Appeal No. 96-3238
Application No. 08/137,590[1]
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ON BRIEF
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Before URYNOWICZ, MARTIN, and FLEMING, Administrative Patent
Judges.

MARTIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-4,

all of appellants' pending claims, under 35 U.S.C. § 103. We

reverse.

The invention is a terminal device management system and

method for detecting a failed terminal among a plurality of

terminals (e.g., copying machines) that a remote management

apparatus expects to hear from via respective lines (e.g.,

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[1] Application for patent filed October 15, 1993.

telephone lines) during a given transmission time interval.

During the transmission time interval, each terminal repeatedly

tries to establish a connection with the remote management

apparatus, which can connect with only one terminal at a time.

In other words, the retry time period of a terminal is shorter

than the transmission time interval. The remote management

apparatus includes a timer which measures the length of each

period during which the apparatus is not connected to any

terminal during the transmission time interval. When a measured

period of inactivity exceeds the retry period, the remote

management apparatus concludes that no terminal is attempting to

establish contact and identifies any terminal that was not heard

from as a failed terminal (as opposed to a terminal that was

attempting to establish communication when the transmission time

interval ended).

Apparatus claim 1 reads as follows:

1.   A terminal device management system including
a plurality of terminal devices and a remote management
apparatus for remotely managing said plurality of
terminal devices, said remote management apparatus
being connected to said plurality of terminal devices
via a line, each of said plurality of terminal devices
comprising:

data storing means for storing data to be
transmitted;

data transmitting means for transmitting said data
stored in said data storing means to said remote
management apparatus;

transmission time interval storing means for
storing a transmission time interval; and

terminal device control means for requesting a
line connection to said remote management apparatus in
said transmission time interval stored in said
transmission time interval storing means, and for, when
said line connection is not attained, repeatedly
requesting said line connection every predetermined
first time period in said transmission time interval,
said predetermined first time period being shorter than
said transmission time interval,

said remote management apparatus comprising:

data receiving means for receiving data
transmitted from said terminal devices;

management table storing means for storing a
management table including at least identification
names of terminal devices which are previously set to
transmit data in said transmission time interval and
corresponding identifiers for said terminal devices
having said identification names for identifying
whether data has been sent from said terminal devices
or not;

timer means measuring a time period during which said line is not connected in said transmission time interval; and

remote management apparatus control means for detecting whether or not the time period measured by said timer means reaches a predetermined second time period set to be longer than said first time period, and for, when it is detected that said predetermined second time period is reached by said measured time period, identifying a respective terminal device as a failed terminal device in the event said corresponding identifier in said management table stored in said management table storing means indicates data has not been received from said respective terminal device.

Method claims 3 recites similar limitations in method format.

The references relied on by the examiner are:[2]

Asip et al. (Asip)   4,361,851   Nov. 30, 1982

Roberts et al. (Roberts) 4,578,700   Mar. 25, 1986

Takayama   4,839,908   June 13, 1989

Bennett, European Patent Application 0 317 082, published May 24, 1989

Claims 1-4 stand rejected under § 103 as unpatentable over Asip in view of Takayama and also as unpatentable over Bennett in view of Roberts.

Asip discloses a system for remotely monitoring television

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[2] The Answer (at 2) also lists patents to Block et al., Lynch et al. and Nakagawa, which are not relied on in any rejection and therefore have not been considered.

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viewing habits. A remote monitoring unit 19 (Fig. 1) associated

with program selector unit 1 for a television receiver

accumulates data representing television usage and attempts to

transmit this data to central office computer 14 over a telephone

line 13 during a time interval determined by software stored in

the remote monitoring unit (col. 3, lines 16-22). If the line is

busy, the remote monitoring unit attempts to redial a random

interval later (col. 3, lines 63-65). No means is disclosed for

identifying a failed terminal.

Takayama discloses three embodiments of data transmission

control circuits which avoid the effects of distortion and noise.

The examiner's description of this reference as teaching

"terminating a transmission channel upon detecting the absence of

a signal" (final Office action at 3) appears to be a reference to

the third embodiment (Figs. 4-6), which activates data processing

circuit 43 only if a first synchronizing signal is followed

within a predetermined time interval by another synchronizing

signal (col. 6, lines 16-40). Regarding motivation, the examiner

contends that "the use of time-out counters are [sic] well-known"

and "one would have a desire to terminate a connection as soon as

a device fails to respond within a given time period" (final

Office action at 3).

Assuming for the sake of argument that the artisan would

have been motivated to combine the teachings of Asip and

Takayama, we agree with appellants that the combined teachings

would not satisfy the claims, i.e., they would not result in a

remote management apparatus that identifies a failed terminal

device by determining that the period of time during which the

remote management apparatus has been continuously available to

receive a communication from the terminal device exceeds the

retry period of the terminal device. The rejection of claims 1-4

under § 103 as unpatentable over Asip in view of Takayama is

therefore reversed.

Bennett discloses a television usage reporting system in

which reporting devices 10 transmit usage data to a central

station 24 over telephone lines 26 whenever the amount of stored

data reaches a predetermined threshold (col. 3, lines 14-27). As

in the claimed system, plural reporting devices may be scheduled

to communicate with the central station during the same time

interval (col. 4, lines 47-53). If a reporting device fails to

establish communication during the assigned time interval, it

makes further attempts during later time intervals selected in

accordance with an algorithm (col. 5, lines 1-33). Retry

attempts are terminated when successful or when a predetermined

number of retries have been attempted (col. 6, lines 4-20). No

means is disclosed for identifying a failed terminal.

Roberts discloses a system for transmitting television usage

data to a remote computer over telephone lines. The only part of

this reference that the examiner cites in the rejection is

col. 13, line 60 et seq. (i.e., claim 1), which he states

"teaches a remote data monitoring apparatus that isolates a

device if a response is not received within a given period"

(final Office action at 4). The motivation for combining the

teachings of Bennett and Roberts is said to be that there "would

have been a desire to terminate a connection as soon as a device

fails to respond within a given reporting period. Moreover, the

use of time-out counters is well known." Id.

As with the first ground of rejection, assuming for the sake

of argument that the artisan would have been motivated to combine

the teachings of Bennett and Roberts, we agree with appellants

that the combined teachings would not satisfy the claims, i.e.,

they would not result in a remote management apparatus that

identifies a failed terminal device by determining that the

period of time during which the remote management apparatus

continuously has been available to receive a communication from

the terminal device exceeds the retry period of the terminal

device. The rejection of claims 1-4 under § 103 as unpatentable

over Bennett in view of Roberts is therefore reversed.

<u>REVERSED</u>

STANLEY M. URYNOWICZ, JR.   )
Administrative Patent Judge)
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JOHN C. MARTIN   )   BOARD OF PATENT
Administrative Patent Judge)   APPEALS AND
)   INTERFERENCES
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